

# Inside Wallops

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Goddard Space Flight Center

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## Greenland Ice-Loss Doubles in Past Decade, Raising Sea Level Faster

The loss of ice from Greenland doubled between 1996 and 2005, as its glaciers flowed faster into the ocean in response to a generally warmer climate, according to a NASA/University of Kansas study.



Arctic glacier

NASA Photo

The study published in the journal *Science*, concludes that the changes to Greenland's glaciers in the past decade are widespread, large and sustained over time. They are progressively affecting the entire ice sheet and increasing its contribution to global sea level rise.

Researchers Eric Rignot of NASA's Jet Propulsion Laboratory and Pannir Kanagaratnam of the University of Kansas Center for Remote Sensing of Ice Sheets, Lawrence, used data from Canadian and European satellites. They conducted a nearly comprehensive survey of Greenland glacial ice discharge rates at different times during the past 10 years.

"The Greenland ice sheet's contribution to sea level is an issue of considerable societal and scientific importance," Rignot said. "These findings call into question predictions of the future of Greenland in a warmer climate from computer models that do not include variations in glacier as a component of change. Actual changes will likely be much larger than predicted by these models."

The evolution of Greenland's ice sheet is being driven by several factors. This study focuses on the least well known

component of change, which is glacial ice flow. Its results are combined with estimates of changes in snow accumulation and ice melt from an independent study to determine the total change in mass of the Greenland ice sheet.

The researchers theorized if glacier acceleration is an important factor in the evolution of the Greenland ice sheet, its contribution to sea level rise was being underestimated.

Glacier acceleration has been the dominant mode of mass loss of the ice sheet in the last decade. From 1996 to 2000, the largest acceleration and mass loss came from southeast Greenland. From 2000 to 2005, the trend extended to include central east and west Greenland.

In May, NASA's P-3 Orion aircraft based at Wallops along with a team of Wallops employees will again fly to Greenland to make measurements of the glaciers. Wallops researchers have been making these measurements since early in the 1990s providing probably the most accurate data on the health of Greenland's glaciers over a large area.

## Scientist Comments on Recent Mission

The performance of the NSROC team was superb. The mission manager, Ted Gass, did an excellent job in effectively managing the overall resources.

The performance of the pointing system during the flight was excellent with minimal drift. We did arrive at the correct target.

All indications are that we would have easily achieved comprehensive success except for the issue of the connectors in the experiment section.

I would like to commend all the WFF and NSROC employees who went the extra mile working on the VAULT payload (36.222 launched July 7, 2005, from White Sands Missile Range).

I look forward to another attempt with a somewhat happier ending.

Clarence M. Korendyke  
Naval Research Laboratory



National Engineers Week  
February 19-25, 2006

Engineers Make  
A World of Difference

## NASA Safety Training Center -- Upcoming Training

All courses are offered at no cost to NASA and contractor employees and will be held in the Building E-2 Classroom. Registrations forms are due by- February 28

### Safety in High Pressure System Operations -- March 30

8 hour course, starting at 8 a.m.

Registration Form:

<http://www.wff.nasa.gov/%7Ecode803/flyers/Highpressure%20Ops.doc>

### Flex Hose Safety -- March 31

8 a.m. - Noon

Registration Form:

<http://www.wff.nasa.gov/%7Ecode803/flyers/Flex%20Hose%20Safety%20056.doc>

### Compressed Gas Cylinder Safety -- March 31

12:30 – 4:30 p.m.

Registration Form:

<http://www.wff.nasa.gov/%7Ecode803/flyers/compressed%20gas%20cylinder.doc>

For further information or to register contact Marvin Bunting at x2030 or by email: [marvin.n.bunting.1@nasa](mailto:marvin.n.bunting.1@nasa).

## Winter Really is Coming to an End

by Ted Wilz, Senior Meteorologist

March brings an end to winter and slightly milder temperatures. Average highs start out around 50 degrees, and are in the mid to upper 50's by month's end. Average lows are around freezing in the beginning of March, but increase to around 40 degrees as April approaches.

March can bring some "surprise warm days" as evidenced by the record high for the month which occurred when we reached 86 degrees on March 13, 1990. March can also bring winter's "last sting," with temperatures as low as 14 degrees having occurred twice since 1980.



Another thing March usually brings is precipitation. March is the wettest month of the year at Wallops Island. We average nearly four inches of rainfall, with rain usually falling on 10 days during the month.

Snowfall becomes increasingly rare, averaging only .33 inch. This is down from the monthly maximum in February of 3.82 inches. It's probably too early to pack away the old snow shovel, especially for the next 3-4 weeks. March 1993 brought "The Storm of The Century" to the East Coast, a significant snow event worth remembering.

## UNDER CONSTRUCTION

### Project Support Facility

Footers and foundations are complete except for the two at the rear of the Facility. These will be poured with the slab. The masonry contractor arrived February 13 to begin work on interior walls. The civil contractor is installing new water lines underground. The "in the wall" electric is going in as CMU walls are going up, and the electrical contractor is working on underground conduit for the parking lot lights.

### Engineering Building

The contractor has provided the pre-cast concrete planking for the second floor deck to begin installation this week. The masonry subcontractor will remobilize to complete prep for plank installation and begin to top-out stair towers following plank installation. Globe Iron is remobilizing to complete steel installation and receive and stage joists. Steel is being re-plumbed prior to plank installation. The mechanical contractor will begin installation of roof drains from the top of the steel to existing tie-in point above the foundation masonry this week. The electric contractor will continue installation of under-floor electric distribution and panels.

## Space Day Invitation

Enjoy working with students? Have a fun interactive student activity? Want to spend a spring day outside in the fresh air? If your answer is YES, then how about spending a day with our colleagues in Greenbelt.



On Thursday, May 4, NASA Goddard Space Flight Center, in conjunction with Lockheed Martin, is sponsoring the 2006 National Space Day event and Wallops employees are invited to join in.

All Goddard organizations and contractors are invited to provide either a student activity station or to be a volunteer to ensure a richer Space Day experience for an estimated 1,500 6th graders.

For further details, visit:

<http://internal.gsfc.nasa.gov/showEvent.cfm?announcecode=1629>

## For Sale

Two chrome tubular side rails for a short bed pickup truck, \$150. Call Susan Annis at (757) 665-4473 after 5 p.m. or on weekends.

## Help Needed

The Wallops Morale Activities Committee, (MAC), is looking for someone to coordinate the annual Easter Egg Hunt scheduled for Saturday, April 8.

The Easter Egg Hunt is a very popular, well-attended family activity.



Contact Claudia Underwood at x1414 or by email : [Claudia.S.Underwood@nasa.gov](mailto:Claudia.S.Underwood@nasa.gov) or Micaela Barnhill at x1641 or by email: [Micaela.A.Barnhill.1@gsfc.nasa.gov](mailto:Micaela.A.Barnhill.1@gsfc.nasa.gov)

Wallops civil servants, contractors, and partners are encouraged to participate.

*Inside Wallops* is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found on the NASA Wallops Flight Facility homepage: [www.wff.nasa.gov](http://www.wff.nasa.gov)

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